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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,680	01/24/2006	Chikara Takagi	284856US3XPCT	2917
22850	7590	02/19/2010		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER HUDA, SAIED M	
			ART UNIT 1791	PAPER NUMBER
			NOTIFICATION DATE 02/19/2010	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/565,680

**Applicant(s)**

TAKAGI ET AL.

**Examiner**

SAEED M. HUDA

**Art Unit**

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 12-22 is/are pending in the application.
- 4a) Of the above claim(s) 15-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date 09/16/2009 and 01/26/2010
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. The response filed on 10/15/2009 has been fully considered and entered into the record. Claims 12-22 are pending in the application. Claims 15-22 are withdrawn from consideration. Claim 13 is amended and no claims are cancelled or added.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 12-14 have been considered but are moot in view of the new ground(s) of rejection, to the extent that the arguments are applicable to the new grounds of rejection; they are addressed below.

Applicant states that the applied art does not teach or suggest that after vulcanization processing, the bladder removes the vulcanized tire from the vulcanization position to the delivery position and contracting the bladder at the delivery position for releasing the vulcanized tire from the bladder as recited in claim 12. Applicant states that in Seko, after the completion of the vulcanization, the bladder is contracted, but does not work to remove the finished vulcanized tire from the upper mold, lower, mold and bladder centering mechanism and such removal is performed by use of a transport device. The Examiner does not agree with these arguments.

Once the tire is placed into the mold using the transport device ([0033]), a fluid is introduced into the bladder to shape the tire ([0034]), the bladder centering mechanism is lowered in order to set the green tire onto the lower mold 18 where vulcanization occurs ([0034] and [0037]), and once vulcanization occurs, the pressurized fluid is discharged to the outside (releasing the bladder at the delivery position) ([0039]).

Applicant goes on to make statements regarding the transport device of Seko and how it would be substantially impossible to hold or hug the outer circumferential surface of the easy to deform finished vulcanized tire. This is merely conjecture on Applicant's part in that there is not real evidence presented to this end.

Applicant goes on to state that the applied art does not teach or suggest making a single centering shaft pass through center of the lower mold, the upper mold, the green tire, the bladder and the pair of bladder operating sleeves during vulcanization by extending the single centering shaft from the upper mold into the pair of bladder operating sleeves as required by the newly amended claim 13. The Examiner is in disagreement.

As stated in the previous action, Babel teaches a lower mold chamber; an upper mold chamber and a ring-like sleeve, which is held in the lower mold chamber and concentric with said element (claim 1). Babel goes on to teach the use of a single centering shaft 29R that passes through the center of the lower mold, the upper mold, the green tire, the bladder and the pair of bladder operating sleeves where the centering shaft extends from the upper mold 7 into the pair of bladder operating sleeve 22.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 12 is rejected under 35 U.S.C. 102(b) as being anticipated by Seko et al. (JP 2003-62832 A).

Seko et al. teach a tire vulcanization method and a tire vulcanization device ([0001]). Seko et al. go on to state that an upper mold 25, lower mold 18, and split-type sector mold 20 are provided in the circumferential direction and are open. Green tire W (unvulcanized tire W) is set while it is centered with respect to bladder 16 that is attached to bladder centering mechanism 17 which protrudes from the central part of lower mold 18 (i.e. loading a green tire into a segmented tread mold that is open radially outward).

A fluid at prescribed temperature pre-pressurized to a prescribed pressure is introduced into bladder 16 in said state so as to shape green tire W and hold green tire W. Then, bladder centering mechanism 17 is lowered in order to set green tire W onto lower mold 18 ([0034]). Pressurized fluid Qa heated to a prescribed temperature is introduced into aforementioned bladder 16 from said condition using a prescribed pressured required for vulcanization; and upper and lower molds 25 and 18 and sector pieces 27 are heated using heating means 18a, 19, and 25a which are embedded in aforementioned respective molds in order to vulcanize green tire W ([0038]). The mold would necessarily need to be opened to remove the tire (i.e. performing a vulcanization process with the segmented tread mold closed radially inward and with a bladder expanded inside the green tire having been loaded).

Once the tire is placed into the mold using the transport device ([0033]), a fluid is introduced into the bladder to shape the tire ([0034]) (i.e. expanding the bladder at the

delivery position to make the bladder hold the green tire loaded into the tire delivery position), the bladder centering mechanism is lowered in order to set the green tire onto the lower mold 18 where vulcanization occurs ([0034] and [0037]) (i.e. making the bladder load the green tire into the segmented tread mod at the vulcanization position) , and once vulcanization occurs, the pressurized fluid is discharged to the outside (releasing the tire from the bladder at the delivery position).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seko et al. (JP 2003-62832 A) in view of Babel (JP 49024286).

a. Regarding claim 13, Seko et al. teaches the presence of a vertical vulcanizer (see rejection of claim 12 above and figures of Seko et al.). Seko et al. teach the presence of an upper 25 and lower mold 18 where the upper mold is arranged over the lower mold (figures and [0033]). Seko et al. fail to teach a pair of bladder operating sleeves which are moveable vertically and respectively air-tightly behind upper and lower end ring portions of a bladder which is expanded inside the green tire.

Babel teaches a tire material vulcanizing press, which is made from two parts, characterized in that said press is comprised of: a lower mold chamber; an

upper mold chamber (claim 1). Babel goes on to teach that a ring-like sleeve, which is held in the lower mold chamber and concentric with said element; a means for fixing the lower surface of said inner tube to the upper end of said sleeve; and a device for loading said sleeve so that said sleeve reciprocally moves in the axial direction between the position, wherein said sleeve is extended in the upper direction, and the position, wherein said sleeve is pulled into the lower part of the lower mold chamber, while said movement of said sleeve is made independently from the axial movement of said element (claim 1) (ie sleeves are moveable vertically and bind the ends of the bladder).

Babel goes on to teach the use of a single centering shaft 29R that passes through the center of the lower mold, the upper mold, the green tire, the bladder and the pair of bladder operating sleeves where the centering shaft extends from the upper mold 7 into the pair of bladder operating sleeve 22.

The vulcanization process of Babel with necessarily be performed with the centering shaft centering the pair of bladder operating sleeves relative to the lower mold and upper mold.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the features of a tire material vulcanizing press, as described in Babel in the invention of Seko et al. because the use of the apparatus Babel leads to an efficient tire producing process (page 9, lines 8-11).

b. Regarding claim 14, Seko et al. teach the limitations regarding a bladder is expandable and contractible at a vulcanization position, tire delivery position,

expansion, contraction, and removal of the tire (see rejection for claim 12 and the Seko et al. reference).

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **SAEED M. HUDA** whose telephone number is (571)270-5514. The examiner can normally be reached on 8:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KHANH NGUYEN/  
Primary Examiner, Art Unit 1791

/SAEED M. HUDA/  
Examiner, Art Unit 1791